TRAFFIC ENGINEERING INDEX — VOLUME 40

October 1969 — September 1970

ARTICLES & REPORTS

	Month	Page
DESIGN		
Derivation of Three-Segment Multiple Weaving Worksheets Frank R. Berry	Oct.	22
Have You Beautified A Bridge Lately? Harvey E. Hawkins	Jan.	42
Interchange Design To Eliminate Wrong-Way Entry Leon Goodman	Oct.	28
EDUCATION		
How Traffic Engineers Should Keep Informed Woodrow W. Rankin	Feb.	32
New York State's Accelerated Training Program Louis J. Pignataro and David H. Bulman	Oct.	42
Non-Engineering Education of Traffic Engineers Project Committee 2K	Nov.	52
Traffic Engineering Education in the Federal Republic of Germany Professor Dr.-Ing. Hans-Georg Retzko	April	50
Traffic Engineering for Technicians Arnold A. Johnson	April	28
Trends in Traffic Engineering Education Fred W. Hurd	Nov.	13
INSTITUTE OF TRAFFIC ENGINEERS		
ITE Meeting To Stress Interprofessionalism Paul Tutt	Aug.	46
ITE Statement on National Highway Needs	July	46
ITE Technical Division	Feb.	48
1969 ITE Annual Business Meeting	Nov.	32
Report from Laurence A. Dondanville, Technical Council Chairman	July	42
Report from Richard M. Rockafellow, IAD Representative	Sept.	58
Report on ITE External Technical Affairs Woodrow W. Rankin	Aug.	43
SAFETY		
Accident Record Systems Stephen Edwin Rowe	Feb.	22
Correlation of Painted Traffic Signal Poles and Intersection Accident Rates Deane S. Terry and Donald S. Wiidy	Aug.	50
Probability Study of High-Accident Locations in Kansas City, Missouri William L. Smith	April	42
Proposed Warrants for Protective Devices At Railroad-Highway Grade Crossings		
Part I—Rural Areas	May	38
Part II—Urban Areas W. D. Berg, T. G. Schultz, and J. C. Oppenlander	June	36
Relationship of Accident Rates with Hourly Traffic Volumes David W. Gwynn and William T. Baker	Feb.	42
Roadway Lighting William L. Williams	March	30
Selecting Locations for Accident Prevention James B. Rushing	July	26
Tentative ITE Standard for Flashing and Steady-Burn Barricade Warning Lights	March	26
Traffic and Safety Research at Work William R. McCasland and Merrell E. Goolsby	April	14
SIGNALS		
Automatic Plotting of Time-Space Diagrams Steiner M. Silence, Robert D. Radics and Leeds M. Chesshir	June	50
Charleston's Signal System Moves Tomorrow's Traffic Through Yesterday's Streets Harold M. Raynor, Jr.	May	26
Extension and Preliminary Validation of A Simulation of Load Factor at Signalized Intersections Adolf D. May and Peter Gyamfi	Oct.	46
Guidelines for the Use of Twelve-inch Nominal Diameter Traffic Signal Lenses Project Committee 7J	March	38
Signal System Studies: A New Approach Jack L. Kay	Jan.	24
The Design of Multiphase Intersection Signal Systems H. N. Yagoda, A. A. Morris and L. J. Pignataro	April	20
The Traffic-Actuated Speed Signal Funnel Charles E. Dare	Nov.	18
Traffic Signal System Capacity Cyrille E. Dodge	May	48
SIGNS		
A Sign Inventory Procedure James M. Vasconcelles	Oct.	36
An Urban Sign Inventory Procedure H. Allen Swanson	May	44
Criteria For The Longitudinal Placement Of Warning Signs R. W. Allington	Aug.	54
TRAFFIC ENGINEERING		
The Decision-Making Role of the Traffic Engineer John E. Baerwald	July	22
The Role of Public Relations in Traffic Engineering Joseph Postar	July	32
Traffic Engineering in Houston Frank L. Watson	Sept.	32
TRAFFIC IMPROVEMENTS		
Rio De Janeiro Traffic Aspects Luiz R. Soares	Dec.	12
Traffic Troubles and Solutions in the Argentine Republic Armando Garcia-Baldizzone	Dec.	42
TRAFFIC OPERATIONS & STUDIES		
An Experiment in Highway System Surveillance Eugene J. Clifford	Jan.	48
Balanced Transportation Through Efficient Use of Existing Facilities John C. Glennon	Aug.	32
Evaluation and Improvement of Operations in a Freeway Corridor Kenneth G. Courage	March	16
Freeway Lane Closures Richard H. Kermode and William A. Myyra	Feb.	14
Photographic O-D Traffic Survey Frank G. Leser III	March	49
Photologging: A Traffic Engineering Tool William T. Baker and James C. Williams	July	14
Skewness of Spot Speed Studies Robert L. Bleyl	July	36
Stopped Vehicle Spacing on Freeways Barry Benioff and Ahmad Moghaddas	Feb.	28
The Prediction of Future Levels of Service on Highway Facilities Robert A. Jones	Dec.	52
The Slow-Moving Vehicle Problem in India Amiya K. Dutta	Dec.	48
The Status of TOPICS William R. McGrath	Nov.	48
TOPICS in Charlotte, North Carolina Karl Noerr	June	16

TRAFFIC ENGINEERING INDEX — VOLUME 40

October 1969 — September 1970

ARTICLES & REPORTS

	Month	Page
DESIGN		
Derivation of Three-Segment Multiple Weaving Worksheets Frank R. Berry	Oct.	22
Have You Beautified A Bridge Lately? Harvey E. Hawkins	Jan.	42
Interchange Design To Eliminate Wrong-Way Entry Leon Goodman	Oct.	28
EDUCATION		
How Traffic Engineers Should Keep Informed Woodrow W. Rankin	Feb.	32
New York State's Accelerated Training Program Louis J. Pignataro and David H. Bulman	Oct.	42
Non-Engineering Education of Traffic Engineers Project Committee 2K	Nov.	52
Traffic Engineering Education in the Federal Republic of Germany Professor Dr.-Ing. Hans-Georg Retzko	April	50
Traffic Engineering for Technicians Arnold A. Johnson	April	28
Trends in Traffic Engineering Education Fred W. Hurd	Nov.	13
INSTITUTE OF TRAFFIC ENGINEERS		
ITE Meeting To Stress Interprofessionalism Paul Tutt	Aug.	46
ITE Statement on National Highway Needs	July	46
ITE Technical Division	Feb.	48
1969 ITE Annual Business Meeting	Nov.	32
Report from Laurence A. Dondanville, Technical Council Chairman	July	42
Report from Richard M. Rockafellow, IAD Representative	Sept.	58
Report on ITE External Technical Affairs Woodrow W. Rankin	Aug.	43
SAFETY		
Accident Record Systems Stephen Edwin Rowe	Feb.	22
Correlation of Painted Traffic Signal Poles and Intersection Accident Rates Deane S. Terry and Donald S. Wiidy	Aug.	50
Probability Study of High-Accident Locations in Kansas City, Missouri William L. Smith	April	42
Proposed Warrants for Protective Devices At Railroad-Highway Grade Crossings		
Part I—Rural Areas	May	38
Part II—Urban Areas W. D. Berg, T. G. Schultz, and J. C. Oppenlander	June	36
Relationship of Accident Rates with Hourly Traffic Volumes David W. Gwynn and William T. Baker	Feb.	42
Roadway Lighting William L. Williams	March	30
Selecting Locations for Accident Prevention James B. Rushing	July	26
Tentative ITE Standard for Flashing and Steady-Burn Barricade Warning Lights	March	26
Traffic and Safety Research at Work William R. McCasland and Merrell E. Goolsby	April	14
SIGNALS		
Automatic Plotting of Time-Space Diagrams Steiner M. Silence, Robert D. Radics and Leeds M. Chesshir	June	50
Charleston's Signal System Moves Tomorrow's Traffic Through Yesterday's Streets Harold M. Raynor, Jr.	May	26
Extension and Preliminary Validation of A Simulation of Load Factor at Signalized Intersections Adolf D. May and Peter Gyamfi	Oct.	46
Guidelines for the Use of Twelve-inch Nominal Diameter Traffic Signal Lenses Project Committee 7J	March	38
Signal System Studies: A New Approach Jack L. Kay	Jan.	24
The Design of Multiphase Intersection Signal Systems H. N. Yagoda, A. A. Morris and L. J. Pignataro	April	20
The Traffic-Actuated Speed Signal Funnel Charles E. Dare	Nov.	18
Traffic Signal System Capacity Cyrille E. Dodge	May	48
SIGNS		
A Sign Inventory Procedure James M. Vasconcelles	Oct.	36
An Urban Sign Inventory Procedure H. Allen Swanson	May	44
Criteria For The Longitudinal Placement Of Warning Signs R. W. Allington	Aug.	54
TRAFFIC ENGINEERING		
The Decision-Making Role of the Traffic Engineer John E. Baerwald	July	22
The Role of Public Relations in Traffic Engineering Joseph Postar	July	32
Traffic Engineering in Houston Frank L. Watson	Sept.	32
TRAFFIC IMPROVEMENTS		
Rio De Janeiro Traffic Aspects Luiz R. Soares	Dec.	12
Traffic Troubles and Solutions in the Argentine Republic Armando Garcia-Baldizzone	Dec.	42
TRAFFIC OPERATIONS & STUDIES		
An Experiment in Highway System Surveillance Eugene J. Clifford	Jan.	48
Balanced Transportation Through Efficient Use of Existing Facilities John C. Glennon	Aug.	32
Evaluation and Improvement of Operations in a Freeway Corridor Kenneth G. Courage	March	16
Freeway Lane Closures Richard H. Kermode and William A. Myyra	Feb.	14
Photographic O-D Traffic Survey Frank G. Leser III	March	49
Photologging: A Traffic Engineering Tool William T. Baker and James C. Williams	July	14
Skewness of Spot Speed Studies Robert L. Bleyl	July	36
Stopped Vehicle Spacing on Freeways Barry Benioff and Ahmad Moghaddas	Feb.	28
The Prediction of Future Levels of Service on Highway Facilities Robert A. Jones	Dec.	52
The Slow-Moving Vehicle Problem in India Amiya K. Dutta	Dec.	48
The Status of TOPICS William R. McGrath	Nov.	48
TOPICS in Charlotte, North Carolina Karl Noerr	June	16

	Month	Page
Snow Control Symposium	Feb.	9
Systems Conference	June	8
3rd ITE World Meeting Scheduled for 1971	Dec.	41
13th Highway Transportation Highway Congress	March	3
Transportation Meeting	Sept.	16
Urban Groups Merge	June	34
USASI Now ANSI	Dec.	64
U. Of I. Conference	Jan.	7

RESEARCH & STUDIES

Ambulance Design	May	3
Cities Selected for SIGOP Program	April	53
CSG to Study States' Science Use	April	53
D. C. to Test UTCS	Aug.	12
DOT Projects Approved for Five Cities	Feb.	63
Information System Study Continued	Aug.	30
Kansas City Awarded First MUST Grant	Nov.	28
Land Use Model Study	Sept.	69
Lane Reduction Study	Feb.	64
Metric System Study	July	24
	Sept.	8
New Town Grant	Aug.	12
Noise Information	July	56
Noise Research	Sept.	61
Passing Aid System Set for Maine	Oct.	60
TACV Study Grant	Aug.	8
Urban Growth Study	Sept.	60
Weaving Area Study	May	53

SAFETY

AAA Pedestrian Awards	July	56
Bus Accidents	April	37
Car Safety Standard	July	56
Highest Death Rate	Dec.	54
Interstate Safety	March	3
Investigaion Teams	March	57
L. A. Safety Program for School Children	July	3
Lift for Handicapped	April	19
1969 Accidents	July	40
1969 Traffic Accidents Cost $16.5 Billion	May	56
NTSB Urges Compatibility	Oct.	6
R. R. Crossing Needs	July	24
Seat Belt Value	May	11
Task Force Named	Dec.	63
Toll Road Safety	May	10
Train Accidents	May	10
Truck Accidents	April	64

TRAFFIC & TRAVEL

Highway Travel Tops Trillion Miles	Oct.	57
Motor Vehicle Travel	March	24
New Toll System	Sept.	61
One-way Regulations Improve L.A. Traffic	Aug.	30
Top Traffic Points	July	59
Traffic Increases in Downtown L.A.,	May	25

TRAFFIC CONTROL DEVICES

Changeable Message Signs	Sept.	8
Computer Control	Feb.	40
Hong Kong Study	April	53
Motorists Cite Inadequate Signs	Oct.	6
N. Y. Computer Control	July	24
UN/ECE Subcommittee Agrees on "Stop" Signs	Dec.	16
Warning Devices Study	Jan.	55

TRANSIT

New Transit Line	Nov.	51
Port of New York Authority Bus Terminal	Sept.	3
Transit Systems Cited	July	3

TRANSPORTATION PLANNING

First HUD Community	April	63
1970 Census to Include Planning Data	Feb.	47
N. E. Corridor Project	July	49

UNCLASSIFIED

Auto Operating Costs	May	53
Census Data Service	July	48
Commuter Taxes	Sept.	68
Continuous Highway Lighting	April	19
Girard Point Bridge	March	15
Historic Landmarks	July	13
New Bridge Connects San Diego, Coronado	Oct.	13
1969 M. V. Registration Exceeds 105 Million	Aug.	30
158 Million Vehicles Predicted for 1990	March	3
Starting & Pulling Ability on Glare Ice	Feb.	13
Two-car Families Increase in Britain	Dec.	25
U.S.—Bulgaria Exchange Program	July	59

AUTHORS

Allington, R. W.	Aug.	54
Baerwald, John E.	Nov.	6
	July	22
	Sept.	6
Baker, William T.	Feb.	42
	July	14
Bartelsmeyer, R. R.	May	34
Benioff, Barry	Feb.	28
Berg William D.	May	38
	June	36
Berry, Frank R.	Oct.	22
Bleyl, Robert L.	July	36
Boardman, Thomas J.	Oct.	16
	Feb.	36
Bulman, David H.	Oct.	42
Chesshir, Leeds M.	June	50
Clifford, Eugene J.	Jan.	48
Courage, Kenneth G.	March	16
Dare, Charles E.	Nov.	18
Derrick, William S.	Oct.	8
	May	9
Dodge, Cyrille E.	May	48
Dondanville, Laurence A.	July	42
Dutta, Amigo K.	Dec.	48
Foley, James L.	July	6
Garcia-Baldizzone, Armando	Dec	42
Gern, Richard C.	Aug.	20
Gonseth, Alan J.	Aug.	6
Goodman, Joseph M.	April	30
Goodman, Leon	Oct.	28
Glennon, John C.	Aug.	32
Goolsby, Merrell E.	April	14
Gwynn, David W.	Feb.	42
Gyamzi, Peter	Oct.	46
Hawkins, Harvey E.	Jan.	42
	Sept.	42
Hensley, Marble J., Sr.	April	6
Hickman, Richard M.	June	26
Hurd, Fred W.	Nov.	13
Jarrett, David H.	June	44
Johnson, Arnold A.	Feb.	7
	April	28
Jones, Robert A.	Dec.	52
Kay, Jack L.	Jan.	24
Kermode, Richard H.	Feb.	14
Koert, Adrian H.	Mar.	7
Kraft, Walter H.	Oct.	16
	Feb.	36
Ledbetter, Parker R.	Sept.	18
Leisch, Jack E.	May	14
Leser, Frank G., III	Mar.	49
May, Adolf D.	Oct.	46
McCasland, William R.	April	14
McGrath, William R.	Nov.	48
	Jan.	9
Moghaddas, Ahmad	Feb.	28
Morris, A. A.	April	20
Myyra, William A.	Feb.	14
Noerr, Karl	June	16
Oppenlander, J. C.	May	38
	June	36
Orlandi, Alessandro	Dec.	18
Parsonson, P. S.	Jan.	34
Pendakun, V. Setty	June	26
Pignataro, Louis J.	Oct.	42
	April	20
Postar, Joseph	July	32
Quinby, Henry D.	Aug.	14
Radics, Robert D.	June	50
Rankin, Woodrow W.	Feb.	32
	Aug.	43
Raynor, Harold M., Jr.	May	26
Retzka, Hans-George	April	50
Roberts, R. R.	Jan.	34
Rockafellow, Richard M.	Sept.	58
Rowe, Stephen Edwin	Feb.	22
Rushing, James B.	July	26
Schultz, T. G.	May	38
	June	36
Shoaf, Ross T.	Dec.	6
	June	6
Silence, Steiner M.	June	50
Smith, William L.	April	42
Soares, Luiz R.	Dec.	12
Swanson, H. Allen	May	44
Terry, Deane S.	Aug.	50
Tutt, Paul	Aug.	46
Vasconcelles, James M.	Oct.	36
Watson, Frank L.	Sept.	32
Wildy, Donald S.	Aug.	50
Williams, James C.	July	14
Williams, William L.	Mar.	30
Yagoda, H. N.	April	20
Zahavi, Yacov	Dec.	26

TRANSIT

	Month	Page
Bus Stops for Freeway Operations	Jan.	14
Operations of a Freeway Priority System for Buses and Car Pools Joseph M. Goodman	April	30
Predicting Bus Passenger Service Time Part I	Oct.	16
Part II Walter H. Kraft and Thomas J. Boardman	Feb.	36
Some Considerations In Ongoing Rapid Transit Planning and Design Henry D. Quinby	Aug.	14

TRANSPORTATION PLANNING

A Plan for Coordination of Transportation with Land Use and Urban Development Jack E. Leisch	May	14
Highways in the 70's R. R. Bartelsmeyer	May	34
Peak-Hour Traffic Models Based on the 1970 Census P. S. Parsonson and R. R. Roberts	Jan.	34
Peripheral Journey to Work in Vancouver, B. C. V. Setty Pendakur and Richard M. Hickman	June	26
Providing for Houston's Air Travelers Harvey E. Hawkins	Sept.	42
Tel Aviv-Yafo Transportation Master Plan Yacov Zahavi	Dec.	26
The Middle-Age Spread of Regional Shopping Centers ... —The 1970's Richard C. Gern	Aug.	20
Transportation Planning of the Emilia-Romgana Region Alessandro Orlandi	Dec.	18
Transportation Study for Monmouthshire David H. Jarrett	June	44
Trip Generation Study of Selected Commercial and Residential Developments Illinois Section, ITE	March	40

UNCLASSIFIED

Houston, Builder of a New City Parker R. Ledbetter	Sept.	18
Houston: The Planning Story Ronald A. Heiser	Sept.	48

NEWS ITEMS

EDUCATION

ASEE to Study Technology Education	Nov.	68
Fellowships Offered	Feb.	62
	July	9
International Study Continues to Increase	Dec.	39
Management Course	Feb.	62
New Program in Information Science	Sept.	69
Planning Institute	April	8
Quality Control Course	Sept.	16
Research Conferences	April	8
Texas T. E. Workshop	May	12
T. E. Graduate Program	Dec.	64
T. E. Short Course	Jan.	7
Transit Short Course	June	8
Transportation Course	Sept.	10
Urban Design Course	June	59
Writing Course	July	9

ENGINEERING PROFESSION

Engineers Salaries Increase 6.2%	March	3
New Draft Revisions Benefit Engineers	Aug.	30
1970 Engineers Week	Jan.	3
1971 Engineers Week	July	34
1969 Achievements in Engineering	March	15
P. E. Salaries Rise	July	13
P. E.s View 1970's	April	62
Purdue Ranks First in Engineering Grads	June	34
Steel Works Cited	June	59

HIGHWAY PROGRAMS

Appalachia Status	July	34
Construction Cost	April	27
DOT Grants	March	15
DOT Housing Policy	April	53
Engineers Recommend End of S. F. "Revolt"	Sept.	39
Environmental Program	April	53
Federal Aid and the Highway Trust Fund	June	34
Grant Awarded for Circulatory System	May	3
Highway Beauty Winners	March	14
Highway Contracts	Sept.	16
Highway Job Training	Sept.	16
Highway Sentiment	Sept.	61
Interstate Status	Feb.	13
New Corridor Program	March	70
1970 Highway Money	Feb.	19
3.7 Million Miles of Roads & Streets	Feb.	18

INSTITUTE OF TRAFFIC ENGINEERS

Board of Direction Meets in Atlanta	Aug.	57
Editors of ITE Section Newsletters	Dec.	54
	Aug.	64
ITE Constitution, By-Laws Changes Approved	Dec.	55
ITE District Meetings	April	11
ITE District 4 Meets in Milwaukee	Sept.	13
ITE Life Members	March	13
ITE Local Section Officers	Nov.	17
ITE Members Active in Ohio Conference	May	13
Memorial Contribution	Oct.	15
New Project Committees	April	12
1970 ITE Board Holds First Meeting	April	54
1969 ITE Participating Organizations	Nov.	51
Notice to ITE Members	March	11
Past Presidents' Award Competition Announced	April	10
Quotes from the 39th ITE Annual Meeting	Nov.	30
Special Notice to ITE Members	April	10
Statement by President Nixon	June	6
Technical Council Holds Winter Meeting	March	13
TSC Head Reports at New England Section Meeting	Sept.	13

LEGISLATION

Billboard Control	July	24
Speed Limit Increases	Aug.	44
State Safety Laws	Dec.	51
Studded Tires	Feb.	13

MEETINGS & ORGANIZATIONS

Accreditation Board	Jan.	41
Address Changes	Jan.	7
AIIE Conference	Feb.	57
ASEE Relocated	Dec.	16
Conference on State Transportation	Sept.	61
Conference Papers Call	Jan.	56
C-M Conference on Transportation Systems	May	11
VI IRF World Meeting	Dec.	41
HRB Summer Meeting	Jan.	22
Ministers of Transport Meet in Paris	March	68
New NAE Committees	June	49
New Organization	Jan.	22
New Transportation Concepts to be Discussed at ASCE Meeting	June	60
1970 IEC Meeting	Dec.	40
Notes from the 1970 HRB Annual Meeting	March	54
OECD Schedules Tunnelling Conference	Dec.	7
OTA/PIARC Study Week	May	3
Rotterdam Will Host Tenth Study Week	Dec.	41

Page
26
42
26
20
18
44
ch 40
. 18
t. 48
g. 57
. 54
g. 64
. 55
il 11
t. 13
rch 13
v. 17
y 13
. 15
il 12
il 54
v. 51
rch 11
il 10
v. 30
il 10
e 6
rch 13
t. 13
y 24
g. 44
. 51
. 13
. 41
. 7
. 57
. 16
t. 61
. 56
y 11
. 41
. 22
rch 68
ne 49
n. 22
ne 60
c. 40
rch 54
c. 7
y 3
c. 41